

ALASKA PIONEER HOME		P&P No: 08.02
Title: Tuberculosis Screening		Approval: D. COTE
Key Words: PPD Skin Test, Infectious, Reporting, Education		
Team: All Employees	Effective Date: 8/1/12	Page: 1 of 5

PURPOSE

To educate, screen, and control tuberculosis (TB) infection in the Alaska Pioneer Homes (AKPH) per Alaska State law.

POLICY

AKPH residents are screened for TB before admission to the Home, employees are screened for TB when hired by the Home, and during yearly rescreening thereafter.

There is an effective TB infection control program at AKPH that educates residents and employees about TB, and detects, segregates, and appropriately refers a person with active infectious tuberculosis disease.

DEFINITIONS

Tuberculosis (TB) is a chronic infection caused by the bacterium *Mycobacterium tuberculosis*. TB is transmitted by the inhalation or ingestion of infected droplets. It usually affects the lungs, but may infect other organ systems.

PPD (purified protein derivative) Skin Test is used to screen and diagnose TB infection.

A small amount of tuberculin, a protein extract of *Mycobacterium*, is injected under the top layer of skin on the forearm. If the person was previously infected with *Mycobacterium*, the person's immune system recognizes the tuberculin and reacts with an immune response. An area of hardened, irritated skin at the PPD site will appear.

PROCEDURE

I. Tuberculosis (TB)

A. Early signs of pulmonary TB

1. Fatigue.
2. Vague chest pain.
3. Pleurisy with fever.
4. Pain.
5. Difficult breathing and cough.
6. Loss of appetite.

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7. Weight loss.

B. Later signs of pulmonary TB

1. Night sweats.
2. Coughing up blood.
3. Purulent sputum.
4. Shortness of breath.

C. People are considered infectious when:

1. Cough is present and pulmonary TB has not been treated.
2. Sputum AFB (acid-fast bacilli) smear is positive.
3. Lung cavities with lesions or infiltrate are seen on a chest x-ray (CXR).
 - a. A complete TB evaluation and CXR is performed as soon as possible at a health clinic, doctor's office, or hospital for recent PPD converters.
 - b. A current CXR report from a medical doctor indicating no cavitation of lung tissue.

D. People with TB are probably not infectious if all of the following are true:

1. Cough is reduced.
2. Fever is resolved.
3. Adequate medication regime for TB is administered.
4. Quantity of bacilli on smear is progressively decreasing.
5. Significant clinical and bacteriological response to medication for TB.

II. PPD Skin Test

A. Administering the PPD skin test

1. PPD test is given by injecting a 0.1 mL volume containing 5 TU (tuberculin units) of PPD into the top layers of forearm skin, immediately under the surface of the skin.
2. Choose a skin area that is free of abnormalities and away from veins.
3. Use a ¼ - ½ inch, 27 gauge needle and a tuberculin syringe to inject.
4. A wheal or bleb (pale elevation of skin) is produced that is quickly absorbed.

B. Reading the PPD skin test

1. PPD tests are read by a nurse 48-72 hours (2-3 days) after administration.
 - a. If the test is not read by day 3, the test is repeated.
2. Record the induration (raised, hardened area), not the redness, in millimeters (mm).
3. Mark the outer edges of the induration with a pen and measure crosswise to the long axis of the forearm.

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4. Evaluating the induration or lack of it:
 - a. Redness without induration is recorded as 0.
 - b. Induration of 0-4 mm is negative (no indication of infection).
 - c. Induration of 5-10 mm is referred to a nurse practitioner or physician for interpretation.
 - 1) 5-10 mm is considered positive (indication of infection) when the person is HIV positive, is in close contact with a person who is newly infected with TB, or has an abnormal chest x-ray.
 - d. Induration > 10 mm is positive.

III. TB Screening of Residents by the ICN or Designee

- A. Within the year prior to admission:
 1. Determine that the resident has a negative PPD or chest x-ray (CXR) by reviewing the admission history and physical data.
 2. Applicant provides more information if it is incomplete or if there is a history of TB without a recent CXR.
- B. At the time of admission:
 1. A PPD test is administered to the resident within two weeks of admission, except if the resident has a history of positive test results.
 2. A TB screening questionnaire is given to residents within one week of admission, due to history of positive test results.
 3. The results of the test or screen are noted in the resident's chart.
 4. A new resident who has had a documented negative PPD test within sixty (60) days prior to admission does not need to be tested upon admission.
- C. Annually:
 1. A PPD test is given to all residents with a history of negative test results.
 2. A TB screening questionnaire is given to all residents with a history of positive test results.
 - a. Questions are about symptoms within the past year, such as persistent productive cough, coughing up blood, chest pain, shortness of breath, unexplained fever lasting more than 3 days, unexplained night sweats, unexplained sudden weight loss, and/or unexplained fatigue.
 3. The test or screening results are documented in the resident's chart.
- D. Positive Home resident PPD test results or TB screening:
 1. The AKPH nurse reports new positive resident test results to the resident's physician and the Alaska Public Health as soon as possible.

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2. A positive read *without* symptoms indicates a latent infection which is not infectious.
3. A positive read *with* symptoms indicates an active infection which is infectious.
 - a. The resident is transferred immediately to a hospital ER for isolation and treatment.
 - b. After the resident leaves their room, shut the door for a couple hours.
 - c. New positive PPD test results or TB screens are reported to the Alaska Public Health.
 - d. When the physician determines that TB is no longer infectious, the resident may return to the Home.
4. The AKPH nurse reports signs and symptoms suggesting TB on the screening form to the resident's physician as soon as possible.
 - a. The nurse obtains further information as ordered by the resident's physician and Alaska Public Health to determine if the resident has active, infectious TB.
 - b. Respiratory secretion precautions for the resident are used until results of diagnostic testing are available.

IV. TB Screening of Staff by the ICN or Designee

- A. The infection control nurse (ICN) manages staff screening in each Home.
 1. A condition of employment is that all Home employees must provide evidence at the start of work that they are free from active TB.
 - a. Employees include full time, part time, on call, contracted hair stylists, and contracted dietary staff.
 - b. Private caregivers hired by the family are tested for TB.
 - c. Students are tested by the school before arriving at the Home.
 - d. Family, volunteers, and contractors are not required to be tested for TB.
 2. The ICN maintains current records of TB screening results and follow-up.
 3. The ICN provides these records to the State licensing agency upon request.
 4. Staff TB records are confidential, and results are secure.
 5. The ICN reports new positive PPD test results to the Alaska Division of Public Health as soon as possible.
 6. Two-step PPD testing is 2 PPD tests 2 weeks apart.
- B. During the employee hiring period:
 1. A PPD test is administered, except if the employee has a history of positive test results.
 2. A TB screening questionnaire is given to the employee when there is a history of positive test results.

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3. The results of the test or questionnaire are noted in the employee's file.

C. Annually:

1. A PPD test is given to all employees with a history of negative test results.
 - a. Bacillus Calmette-Guerin (BCG) vaccine recipients receive a PPD test unless they are documented as having positive PPD results.
2. A TB screening questionnaire is given to all employees with a history of positive test results.
 - a. If the TB screening questionnaire suggests signs of TB, the ICN directs the employee for further testing.
 - b. The employee maintains a chest x-ray report in their health file.
3. The test or screening results are documented in the employee's file.

D. Positive staff PPD test results or TB screening:

1. The ICN notifies the employee with new positive test results or TB screen to contact their health care provider or public health for further testing.
2. A positive read *without* symptoms indicates a latent infection which is not infectious.
3. A positive read *with* symptoms indicates an active infection which is infectious.
4. The employee does not return to work until a note from their health care provider that they are free from active TB is provided.
5. New positive PPD test results or TB screens are reported to the Alaska Public Health.

HISTORY OF REVISIONS

New: 1/1/12

Revised: 2/28/12; 3/7/12; 7/20/12

Reviewed: 2/28/12; 3/7/12

ATTACHMENTS

N-05 TB and PPD skin test

REFERENCES

7 AAC 75.220